SUPERFUND PRELIMARY SITE CLOSEOUT REPORT
FINAL REMEDIAL ACTION
FOR
Interstate Pollution Control Superfund Site
Rockford, Illinois

I. INTRODUCTION

This Preliminary Closeout Report (PCOR) documents the completion of construction activities for the Interstate Pollution Control (IPC) Superfund site in accordance with U.S. EPA's OSWER Directive 9320.2-09 A-P. This is a PRP lead remedial action.

Pre-final inspections were conducted by the U.S. Environmental Protection Agency (EPA), along with the Illinois Environmental Protection Agency (Illinois EPA) on June 28, 2006; July 19, 2006 and August 23, 2006 to ensure that the remedy was constructed in accordance with the remedial design and remedial action plans and specifications. The engineered barrier was found to be completed, the site is fenced and 'No Trespassing' signs are placed on the fence at various points around the site.

Illinois EPA is the enforcement lead at this site and has been overseeing the activities performed by the PRPs and has conducted negotiations with the PRPs. The inspections verified that the PRPs performed the activities necessary to achieve the performance standards and site construction completion. All construction was in accordance with approved remedial design plans and specifications.

All construction activities were completed on-site on August 23, 2006. Two off-site groundwater monitoring wells still need to be installed. The PRPs are waiting for the access agreements to be completed through the proper legal channels. Verbal permission has been granted to install the off-site wells. Deed restrictions also need to be finalized and are currently being processed through the proper legal channels. All remaining construction activities are complete at this site which is approximately 2.8 acres in area.

II. SUMMARY OF SITE CONDITIONS

Site Description

The IPC site (the site) is located in an industrial area in the south central part of Rockford, Winnebago County, Illinois northwest of Magnolia and Peoples Avenue. The National Superfund Wastelan Database identification number for the site is ILT 180 011 975. The small (approximately 2.8 acre), irregularly-shaped site measures approximately 850 feet along the north boundary line and 270 feet along the east boundary line.

The Remedial Investigation/Feasibility Study (RI/FS) of this former waste recycler/transport site was conducted by the Potentially Responsible Parties (PRPs) under the oversight of the Illinois EPA. All RI/FS activity was funded by the PRPs and conducted with a Partial Consent Decree with the State of Illinois.

During IPC's operation of the site it contained at least six under ground storage tanks, one large above ground storage tank, an unlined surface impoundment, a gas fired incinerator, and several structures. IPC's operation at the site included transporting and bulking of waste oils, solvents and cyanide waste for incineration, resale and/or off-site disposal. Also, during IPC's operation of the site support service was provided to sister companies: a portable toilet business and a Roto-Rooter franchise. Prior to IPC's operations, the site was extensively quarried and backfilled with various materials including a large quantity of foundry sand. Following filling of the quarry and immediately prior to IPC's operations, the site was the location of an auto salvage yard.

Site History and Enforcement Activities

The Illinois EPA, EPA and other state and federal agencies began to investigate and evaluate the IPC site conditions in 1979. In 1985, the EPA conducted a preliminary field investigation of the site and the adjacent Peoples Avenue Landfill and in 1987, evaluated the site under the Hazard Ranking System (HRS). The IPC site received an HRS score of 46.01 and was placed on the National Priorities List (NPL) on June 24, 1988.

In 1991, private parties negotiated a Partial Consent Decree with the Illinois EPA and the Attorney General of the State of Illinois. The Partial Consent Decree required that the private parties undertake a RI/FS at the Site. The RI Work Plan was completed in 1992, and the field investigations were conducted in 1993 and 1994. The final RI Report was submitted in 1997.

Significant removal actions had occurred at the IPC site on two different occasions. The incinerator was removed between 1976 and 1979. IPC conducted a partial cleanup of the site in 1979 and 1980, in response to an Illinois Pollution Control Board Order. During this partial cleanup of the site several bulk tankers containing wastes, approximately 180 cubic yards of material from the surface impoundment, and approximately 120 cubic yards of cyanide contaminated material were removed. Reportedly, 1,200 drums of contaminated materials were also removed from the site during this cleanup. The surface impoundment was backfilled and graded.

On August 6, 1991, EPA issued a Unilateral Administrative Order (UAO) to IPC and a group of PRPs to conduct additional removal activities at the site. Beginning in 1992, the Respondents to the UAO fenced the site, removed over 1,400 tons of solid and hazardous waste (including visibly stained soils), demolished and removed all above-ground and underground tanks and significant physical structures, installed a clay cover over the former impoundment, and substantially cleared the site.

These removal actions eliminated more than 2.9 million pounds of solid and hazardous waste. These materials constituted principal threats at the site, and were removed, treated, destroyed or disposed of prior to the initiation of the RI/FS.

Site Characteristics

The site is located in an area that has been heavily industrialized since the turn of the century. Historic industrial activities in the area include metal casting, plating, machine tooling, textile manufacturing, leather tanning and printing operations. Aerial photographs and maps from the early to mid-1900s indicated there were several major quarries in the site vicinity. Most of these quarries have since been filled. A 1918 topographic map indicates a quarry existed beneath most of the IPC site. Later aerial photographs show those portions of the quarry under the site being completely filled by 1943.

The closest residential area to the IPC site is located approximately 600 feet to the north. This area is hydraulically up-gradient to the cross gradient of the site. Other residential areas are located approximately 2,700 feet to the east of the site, and 2,300 feet to the southeast. Blackhawk Park is located approximately 700 feet to the northwest of the site. None of these areas has been impacted by the IPC site.

The IPC site is surrounded by numerous industrial facilities. The Gunite Foundry, located northeast of the site, has been in operation for at least 80 years. A pond located immediately north of the IPC site had been used by the foundry for the discharge of storm water and cooling water from casting operations. At the time of the RI field activities, the pond was still receiving some discharge from the Foundry and contained a considerable volume of water. Since that time, an independent waste disposal company has acquired the property, and the foundry stopped discharging to the pond. The disposal company has been using the property to store construction equipment, and has been slowly filling the pond with what appears to be construction debris. The pond is now dry, and the east half of the pond, can no longer be considered a significant environment feature.

A former pet food plant, located immediately southwest of the site, processed meat and produced pet food from the turn of the century until the 1980s. Several areas on the property may have been excavated and then filled with solid fill materials.

The Peoples Avenue Landfill is located immediately southeast and south of the site. This property was originally a sand and gravel quarry. The City of Rockford (the City) used the quarry for waste disposal from 1942 until 1972, receiving residential, commercial and industrial wastes. Methane gas generated by the landfill was detected in the basement of the adjacent pet food plant. Venting pipes constructed later within the landfill alleviated the gas problem at the plant.

In 1957, the City installed a public supply well, Municipal Well No. 14, near the southeast corner of the Peoples Avenue Landfill. This well was abandoned in 1971, prior to the start of the IPC operations, because of deteriorating water quality. Significant increases in chloride, manganese, sodium, ammonia, alkalinity, hardness and dissolved minerals were found. The deteriorating water quality was attributed to the landfill.

Furthermore, the pet food plant had four wells prior to 1966. In 1965, taste and odor problems became apparent in the well water. The deterioration in water quality was believed to be the result of contamination by the adjacent Peoples Avenue Landfill.

The former Mattison Machine Works is located approximately 1,000 feet northeast (i.e., up-gradient) of the IPC site. In 1995, Illinois EPA records indicate that perchloroethylene (PCE) is present in groundwater beneath the facility. Ongoing monitoring by Mattison Machine Works indicates that a plume of volatile organic compounds (VOCs), including PCE, trichloroethylene (TCE), and 1,1,1-trichloroethane (TCA), is passing beneath the Mattison property from another up-gradient source. The maximum detected VOC concentrations included PCE at 10,600 ug/l; TCE at 1,500 ug/l; and TCA at 800 ug/l. It is important to note that these concentrations are significantly greater than the concentrations of these same constituents in groundwater beneath the IPC site.

Of particular relevance to the remedial action described in the IPC ROD is the fact that the IPC site is encompassed by the much larger Southeast Rockford Study Area. The Southeast Rockford Groundwater Contamination (SER) site began with the discovery of VOCs in groundwater within a residential area of nearly two square miles. That discovery prompted the U.S. EPA to ultimately extend water mains and connect 526 residences to City water at a cost of approximately $4 million. The SER site was then added to the NPL. After further Illinois EPA study, the SER site was expanded to a ten square mile study area which incorporates almost 20% of the City and includes the IPC site. Studies have since indicated the widespread presence of chlorinated solvents in groundwater within this ten square mile area, in concentrations varying from less than 10 ppb to over 10,000 ppb. As a result of the widespread groundwater contamination, the City closed several municipal wells in this general area.

On September 29, 1995, the Illinois EPA issued a Record of Decision (ROD) which addressed groundwater contamination at the SER site. The ROD defined the SER site boundary as the area within the 10 ug/l contour line of the main VOC plume (approximately 1,200 feet southeast of the IPC site at the closest point). It must be noted, however, that the Illinois EPA and the EPA had not independently investigated groundwater conditions in the general up-gradient vicinity of the IPC site which, as noted earlier, exhibit elevated concentrations of VOCs.

Within the SER site, the Illinois EPA selected groundwater use restrictions as the appropriate groundwater response action. The selected response action includes groundwater monitoring for at least 205 years, installation of water mains in the affected areas, connecting additional residences and businesses to City water, and implementation of institutional controls. The Illinois EPA stated that, with this groundwater response action, contaminants would be removed from groundwater by natural attenuation. The City is pursuing a tax program to assume the responsibility to address groundwater concerns area wide. This program includes institutional controls on groundwater use and operational components of water treatment to remove VOCs from city water.

The IPC site is located approximately 1,600 feet east of the Rock River, outside the limits of the 500-year floodplain. The site is generally flat, and there is little runoff from the property. Most surface water (rainwater and snow-melt) accumulates in shallow puddles and eventually evaporates or infiltrates into the subsurface soils. In areas surrounding the site, surface water drains to storm sewer catch basins.

Fill is present across most of the site and extends to depths of up to 46 feet. Most of the on-site fill consists of fine black sand believed to be foundry sand. The fill also includes wood, glass, concrete, brick and slag. Deposits of medium to coarse sand, and sand and gravel occur beneath the fill. These out-wash deposits extend to a depth of about 100 feet. Firm to very dense silt, clayey silt or silty clay layers are interbedded within the sand and gravel deposits in the site vicinity. The bedrock surface is approximately 150 to 200 feet below groundwater surface.

As the primary sources of contamination had been previously removed, the following conceptual site model for soils and groundwater was developed and used for the RI and carried through the Baseline Risk Assessment. Terrestrial and aquatic biotas were not considered at risk from the site and were not carried forward. Surface soil, sub-surface soil, sediment in the adjacent quarry pit, and groundwater were investigated during the sampling portion of the RI which was conducted in 1993 and 1994. As no ongoing air releases were occurring at the site, but were possible during past operation of the incinerator, sampling of off-site surface soils was conducted to assess impacts; none were found. A total of 23 new or existing shallow and deep monitoring wells were utilized to assess site impacts on groundwater. The near-surface unconfined aquifer is the aquifer of concern; consequently, monitoring wells were not installed in the deep aquifers located below the confining silty stratum at this site. The general direction of groundwater flow is southwest to west southwest towards the Rock River. The groundwater flow velocity in the surficial aquifer in the site study area ranges from 0.75 to one foot per day (300-400 feet per year). One of the most notable outcomes of the groundwater portion of the investigation was verification that a plume of chlorinated volatile organic compounds, at substantially higher concentrations than occur on site is approaching the site from the north east. It was estimated in 1995 that this plume was expected to reach the IPC site in 15 to 45 years.

Specifically to assess contaminated deep and shallow groundwater impacts on the Rock River two (2) shallow and two (2) deep monitoring wells were installed down-gradient of the site, in close proximity to the river. Only vinyl chloride (maximum detected concentration, 6 ug/l) and manganese (maximum detected concentration, 3,240 ug/l) were identified at levels above MCLs. Neither of these contaminants could be fully attributed to the IPC site because of the close proximity and up-gradient location of Peoples Avenue Landfill and the nearly ubiquitous nature of these two contaminants in the Southeast Rockford area.

Groundwater supplies in Winnebago County are obtained from aquifers in both the glacial drift deposits and bedrock. Principal aquifers within the glacial drift are generally limited to major bedrock valleys with thick sand and gravel deposits. Although there are

industrial and municipal wells which draw water from the drift aquifers, the Galena-Platteville bedrock formation is the primary source of potable groundwater for domestic use.

Water supplies delivered by pipe mains are available from the public utility for the entire IPC site RI study area, including the residences north of the site and Blackhawk Park. A well inventory indicates that all recorded wells located down-gradient of the site have either been abandoned or no longer exist and that there are no consumers of well water who might be impacted by groundwater contamination at the site and contamination originating up-gradient of the site.

No wetland areas are threatened as a result of IPC site activities or the groundwater plume which extends beyond the property boundary, and no other critical habitats have been identified. The ecological risk assessment concluded that contaminant levels detected at the site are unlikely to pose a high ecological risk to local flora and fauna; no adverse impacts were observed at the site during a reconnaissance; and no state or federal threatened or endangered species are likely to be affected by the site contaminants.

There is no evidence to indicate that Resource Conservation & Recovery Act (RCRA) listed wastes were handled at the facility during its operation and no characteristic wastes were left on-site following the previously discussed removal actions.

Selected Remedy

The selected remedy for the IPC site is Institutional Controls and Engineered Barrier with Monitored Natural Attenuation of Groundwater with the Soil Vapor Extraction (SVE) component as a contingent remedial option. The decision to implement the SVE component will be made following implementation of the remedy and a demonstration period over the next five years to determine whether the continuing release of site contaminants to groundwater is occurring, or has been substantially reduced. The decision to implement the SVE component will be deferred until the statutorily required Five Year Review and will rely primarily on statistical analysis of groundwater trends at the site.

The institutional controls call for maintenance of the existing Declaration of Restriction already filed with the Winnebago County Recorder which contains the following pertinent language "The following restrictions are hereby placed upon the use of the aforesaid real property (also described herein as "the site") and shall run with the land, so as to prohibit to-wit: a) all residential development of the site; b) all public access to the site except for general industrial use; c) all unpermitted treatment, storage or disposal of waste on the site; and d) all uses of groundwater at the site; all of the above except as required by the Illinois Environmental Protection Agency or the United States Environmental Protection Agency." This Declaration of Restriction was filed March 10, 1995.

The remedy also called for maintaining the existing site security fence to enforce the Declaration of Restriction and supplement existing warning signs around the site perimeter discouraging trespassers and noticing a prohibition of unauthorized excavation.

Groundwater contamination beneath the IPC site will be remediated through monitored natural attenuation. The Illinois EPA and U.S. EPA adopted this approach for the SER, noting that the aquifer will not be actively restored to drinking water quality. Illinois EPA and U.S. EPA noted that passive restoration will occur over an extended period of time, with only a small incremental reduction of groundwater contaminants expected on an annual basis.

Following completion of construction activities, site inspections will be performed on a quarterly basis to document the integrity of the existing site security fence and engineered barrier, the effectiveness of the institutional controls, and the condition of the monitoring well system. On a yearly basis and consistent with inspection, maintenance and corrective action plan to be developed as part of the remedial design and approved by the Illinois EPA, the pavement will be inspected and damaged areas will be repaired. Cracks in the pavement will be filled and the entire surface will be sealed. Results of the inspections will be document in inspection reports submitted to Illinois EPA.

III. Demonstration of Cleanup of Activity QA/QC

A Construction Quality Assurance Plan (CQAP) was prepared in conjunction with the remedial design to address the activities necessary to ensure compliance with the requirements of the remedy. The protocols contained in the CQAP were employed during construction to ensure that the construction of the engineered barrier was performed in accordance with the ROD and RD plans and specifications. Details of the procedures used to ensure the quality of the construction work were in the approved CQAP.

The construction completion activities at the site were consistent with the ROD and the approved remedial design plans and specifications.

IV. Activities and Schedule for Site Completion

The following post-construction activities will be completed according to the schedule, below:

Activity	Estimated Completion Date	Responsible Organization
Deed Restrictions	October 2006	PRPs
Final RA Report	October 2006	PRPs
First Five Year Review	September 2011	U.S. EPA/Illinois EPA
Final Closeout Report	September 2025	U.S. EPA/Illinois EPA
NPL Deleting	September 2026	U.S. EPA/Illinois EPA

V. Summary of Remediation Costs

ROD Estimate of Capital Costs and Annual O&M Costs

The capital cost for the selected remedy was estimated in the ROD to be $985,000, Year 1 Operation & Maintenance Cost was estimated to be $87,155; Total Present Worth Cost was estimated to be $2,328,000.

Construction Contract Award Amount

The IPC Superfund site is a PRP lead site. The PRP is not required to provide EPA with construction cost information. Illinois EPA contacted the PRP representative and he would not provide these costs.

VI. Five-Year Review

Pursuant to CERCLA Section 121(c) and as provided in the current guidance on Five-Year Reviews: OSWER Directive 9355.7-02, Structure and Components of Five-Year Reviews, May 23, 1991, OSWER Directive 9355.702A, Supplemental Five-Year Guidance, July 26, 1994, and the Second Supplemental Five-Year Review Guidance, December 21, 1995, U.S. EPA must conduct a statutory Five-Year Review since hazardous substances will remain at the site above health-based levels that allow unrestricted exposures after completion of the remedial action; the ROD for the site was signed on or after October 17, 1986; and the Remedial Action was selected under CERCLA §121. The first Five-Year Review will be completed five years after the Remedial Action start date of April 10, 2006.

Richard C Karl

Richard C. Karl, Director
Superfund Division
U.S. Environmental Protection Agency

9-6-06

Date

Photos from June 28, 2006

Grading and Grubbing; Northeast Side of Site

Grading and Grubbing; East Side of Site

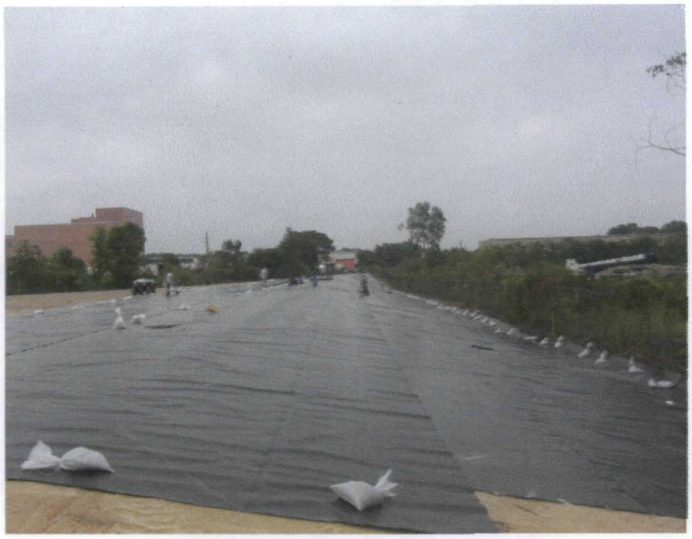
Grading and Grubbing and Forming Slope; North Side of Site

Grading and Grubbing and Forming Slope; North Side of Site

Grading and Grubbing; West Side of Site

Grading and Grubbing; East Side of Site

Photos from July 19, 2006



Installing FML; North Side of Site

Work Crew Sealing FML; North Side of Site

FML (facing East)

FML; West Side of Site

FML; West Side of Site

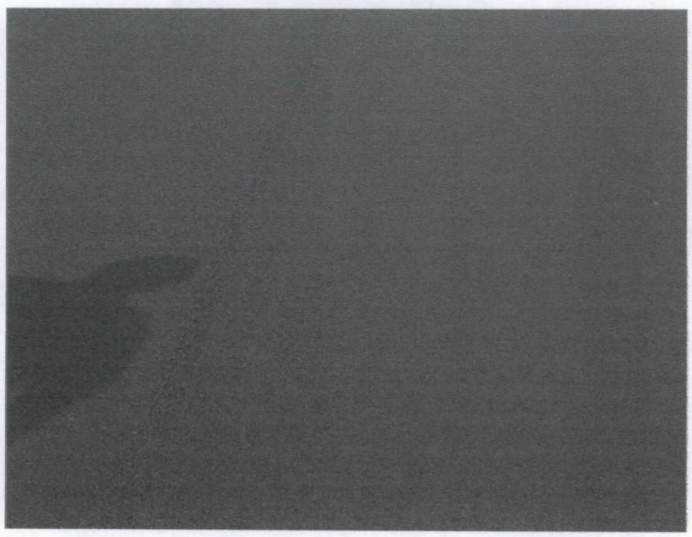
Crew Preparing for next FML Layer

Photos from August 23, 2006

Blacktop Cover; On-site Monitoring Well (facing South)

Blacktop Cover; (facing West)

Blacktop Cover on North Side Slope; Rip Rap along Fence



Blacktop Cover

Blacktop Cover; On-Site Monitoring Wells (facing West)

Rip Rap along Fence

On-Site Locked Groundwater Monitoring Well

On-Site Locked Groundwater Monitoring Well

No Trespassing Sign; Signs Posted around the Site

No Trespassing and No Excavation Signs

On-site Locked Groundwater Monitoring Well

On-site Locked Groundwater Monitoring Well

Blacktop Cover

IPC Entry Gate

IPC Entry Gate with Posted Signs

IPC Entry Gate with Posted Signs and Locked